

BIOTECHNOLOGY ADVANCED EDUCATION PROGRAM

CURRICULUM STRUCTURE & CONTENT

Course	Semester	No.	Subject	code	Total of credit	literature	Practise	Prerequisite	Required/ Electives
1	1	1	English Speaking and Listening 1	SNE01010	9	9.0	0.0		R
1	1	2	English Reading and writing 1	SNE01011	8	8.0	0.0		R
1	1	3	Physical education 1	GT1001	1	0.0	1.0		R
1	2	4	English Speaking and Listening 2	SNE01012	7	7.0	0.0	English Speaking and Listening 1	R
1	2	5	English Reading and writing 2	SNE01013	6	6.0	0.0	English Speaking and Listening 1	R
1	2	6	Soft skill		6				R
1	2	7	Physical education 2	GT1002	1	0.0	1.0		R
1	2	8	Military education 1	QS1001	3	3.0	0.0		R
2	3	9	Basic principles of Marxism-Leninism 1	ML01001	2	2	0		R
2	3	10	General Chemistry	MT01001	2	1.5	0.5		R
2	3	11	General law	ML01009	2	2	0		R
2	3	12	Probability and statistics	TH01007	3	2.5	0.5		R
2	3	13	Molecular biology 1	SHE01005	2	2	0		R
2	3	14	Molecular biology 1 lab	SHE02006	1	0	1		R
2	3	15	General biology	SHE01001	2	1.5	0.5		R
2	3	16	English for Biotechnology	SHE03001	4	4	0	English Speaking and Listening 2 English Reading	R

								and writing 2	
2	3	17	General microbiology	SHE01002	2	1.5	0.5		R
2	3	18	Military education 2	QS1002	2	2	0		R
2	4	19	Organic Chemistry	MT01001	2	1.5	0.5	General Chemistry	R
2	4	20	Basic principles of Marxism-Leninism 2	ML01002	3	3.0	0.0	Basic principles of Marxism-Leninism 1	R
2	4	21	General genetics	SHE01004	3	3.0	0.0	General biology	R
2	4	23	Botany	NH02001	3	2.0	1.0	General biology	R
2	4	24	Cell biology	SHE02003	2	2.0	0.0	General biology	R
2	4	25	General biochemistry	CP02005	2	1.5	0.5	General Chemistry	R
2	4	26	General Informatics	TH01009	2	1	1		R
2	4	27	Microbial Biology	SHE02008	2	2.0	0.0		R
2	4	28	Military education 3	QS1003	3	2	1		R
2	4	29	Physical education 3	GT1003	1	0.0	1.0		R
3	5	30	Molecular biology 2	SHE03004	2	2.0	0.0	Molecular biology 1	R
3	5	31	Human and Animal Biology	SHE02002	3	3.0	0.0	General biology	R
3	5	32	Ho Chi Minh ideology	ML01005	2	2	0		R
3	5	33	Immunology	SHE02010	2	2.0	0.0	General microbiology	R
3	5	34	Analytical Chemistry	MT01004	2	1.5	0.5	General Chemistry	R
3	5	35	Plant physiology	SHE03067	3	2.0	1.0	Botany	R
3	5	36	Principles of Economics	KTE02005	3	3.0	0.0		R
3	5	37	Evolution and biodiversity	SHE02009	3	3.0	0.0	General biology	R
3	5	38	Physical education 4	GT1004-12	1	0.0	1.0		R

3	6	39	Genetic engineering: principles and applications	SHE04008	3	3	0	Molecular biology 1	R
3	6	40	Genetic engineering lab	SHE04009	1	0	1		R
3	6	41	Animal cell technology	SHE04006	3	3.0	0.0	General biology	R
3	6	42	Animal cell technology lab	SHE04007	1	0.0	1.0		R
3	6	43	Microbial biotechnology	SHE04012	3	3.0	0.0	General microbiology	R
3	6	44	Microbial biotechnology Lab	SHE04013	1	0.0	1.0		R
3	6	45	Professional Internship 1	SHE04001	5	0.0	5.0		R
3	6	47	Physical education 5	GT1005-13	1	0.0	1.0		R
3	6	48	Experimental methodology	NH02005	2	1.5	0.5	Probability and statistics	E
3	6	49	General plant pathology	SHE03001	2	1.5	0.5	General microbiology	E
3	6	50	General Entomology 1	SHE03023	2	1.5	0.5	General biology	E
3	6	51	Principles of crop production	SHE03066	2	1.5	0.5		E
3	6	52	Introductory animal production	CNE01007	2	2.0	0.0		
3	6	53	Animal Developmental Biology	SHE03064	2	2	0		E
3	6	54	Plant Developmental Biology	SHE03065	2	2	0		E
4	7	54	Protein-enzyme technology	SHE03010	3	3.0	0.0	General Biochemistry	R
4	7	55	Protein-enzyme technology lab	SHE03011	1	0.0	1.0		R
4	7	56	Professional Internship	SHE04002	8	0.0	8.0		R
4	7	57	Plant cell and tissue culture technology	SHE04014	3	3.0	0.0	General biology	R

4	7	58	Plant cell and tissue culture technology lab	SHE04015	1	0.0	1.0		R
4	7	59	Agribusiness Management	KQE03111	2	2.0	0.0		R
4	7	60	Molecular Diagnostics and Gene Therapy	SHE03060	2	2.0	0.0	Molecular biology 1	E
4	7	61	Biotechnology in plant breeding	SHE03051	2	2.0	0.0	General genetics	E
4	7	62	Virology	SHE03061	2	1.5	0.5	General microbiology	E
4	7	63	Principles of plant breeding	SHE03046	2	2.0	0.0	General genetics	E
4	8	66	Current topics in biotechnology	SHE03057	2	2.0	0.0		E
4	8	67	Seminar	SHE03056	1	1.0	0.0		E
4	8	68	Stem cell technologies	SHE03050	2	2.0	0.0	Animal cell technology	E
4	8	69	Biotechnology in animal breeding	SHE03052	2	2.0	0.0	General genetics	E
4	8	70	Biotechnology of edible and medicinal mushrooms	SHE03055	3	3.0	0.0	General microbiology	E
4	8	71	Biosafety	SHE03054	2	2.0	0.0	Genetic engineering: principles and applications	E
4	8	72	Environment biotechnology	SHE03053	2	2.0	0.0	General microbiology	E
4	8	73	Nanobiotechnology Principles and applications	SHE03059	2	2.0	0.0	Molecular biology1	E
4	8	74	Intellectual Property in Biotechnology	SHE03062	2	2.0	0.0		E
4	8	75	Natural secondary compounds	SHE03063	2	2.0	0.0		E

4	8	76	Hi-tech Agriculture	SHE0305 8	2	2.0	0.0		E
5	9	77	Graduation thesis	SHE0499 9	10	0.0	10.0		BB